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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,820	09/22/2006	Kouji Kitahata	AI-431NP	4741
23995	7590	05/18/2010	EXAMINER	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			OLADAPO, TAIWO	
			ART UNIT	PAPER NUMBER
			1797	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,820	Applicant(s) KITAHATA ET AL.	
	Examiner TAIWO OLADAPO	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment dated 01/29/2010 has been considered and entered for the record. The amendment overcomes the rejections based on the reference of Oohira et al (2003/0022797) which are hereby withdrawn. The cancellation of claim 3 overcomes the previous claim objection. Other previous rejections are maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 4 – 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatani et al. (US 2003/0176298) in view of Aoki et al. (US 5,354,487).

6. In regards to claims 1, 2, 4 – 6, Nakatani teaches a lubricant composition for rolling bearings [title, 0075], comprising a thickener of a calcium sulfonate and calcium carbonate complex and base oil according to the limitations of claim 2 [abstract, 0050]. Nakatani does not recite that the lubricant comprises fine particles.

Aoki teaches solid lubricant additives for use in bearings, and in gear oils, bearing oils and greases as in the invention of Nakatani (column 1 lines 46 – 52). The solid lubricants are cured products having particle sizes of less than 100mm, and are thus fine particles meeting the limitations of claims 1, 4, 5. The fine particles are made of thermoplastic resins such as polyethylene, polyester, polyimide and polyurethane resins which are examples of materials for making the buffer particles in the applicant's specification, paragraph 0025, thus meeting the claimed limitations.

Aoki teaches the particles are cured polybutadiene are present in lubricating compositions in the amount of from 0.01 to 50 parts by weight based on 100 parts by weight of the lubricating oil. Nakatani teaches the thickener composition comprises from 5 to 95% of the calcium sulfonate complex and is present at about 3 to 40% in the lubricant [0053, 0055]. Thus the calcium sulfonate complex is present in the lubricant at about 0.15 to 38%. The percent of particles in the composition of the combined invention will therefore overlap the limitation of

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claim 6. In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

It would have been obvious for one of ordinary skill in the art at the time of the invention to have used the particles of Aoki in the bearing oil of Nakatani, as Aoki teaches that the particles are suitable for use in bearing oils or greases.

7. In regards to claim 7, Nakatani and Aoki combined teach the lubricant composition wherein the base oil has a kinematic viscosity of between 50 and 500 mm²/s at 40°C (Nakatani, abstract). Since the composition has the same ingredients meeting the limitations of claim 1, it will also have similar mixing consistency at the recited temperature.

Response to Arguments

8. Applicants’ arguments have been fully considered but they are not persuasive.

9. The amendments of the claims to recite a composition consisting essentially of lubricating oil, thickener and fine particles overcomes the rejection of Oohira et al. (US 2003/0022797) which teaches compositions comprising lubricant impregnated into pores of porous silica the presence of which affects the basic and novel characteristics of the composition. Therefore, the rejections over Oohira et al are withdrawn.

10. The applicants grossly mischaracterize the examiner's analysis of the reference of Aoki as teaching solid lubricant compositions, rather than solid lubricants used as additives comprised in oils such as bearing oils and gear oils (See §6 above). The applicants argue that Aoki does not recite forming fine particles of resin or rubber and containing the fine particles in the lubricating

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oil together with the solid lubricant. Again, in correction, the solid lubricants are additives and are themselves the cured products having particle sizes of less than 100mm dispersed in the lubricating medium, such as bearing oils as discussed above. The particles are made of thermoplastic resins such as polyethylene, polyester, polyimide and polyurethane resins which are examples of materials for making the buffer particles of the claimed invention as recited in the applicant's specification, paragraph 0025. Thus, particles having the recited sizes dispersed in the lubricating medium meet the definition of the buffer and/or fine particles of the claimed invention. The examiner is of the position that the combination of Nakatani and Aoki meet the claimed limitations and the rejection under 103 is thus maintained.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAIWO OLADAPO whose telephone number is (571)270-3723. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TO

/Ellen M McAvoy/
Primary Examiner, Art Unit 1797